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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NOBUHIRO MIAHIMA, KAZUHIRO ISHIGURO, and
TOSHIYA SHIRASAWA

Appeal 2007-000480
Application 09/585,339
Technology Center 2600

Decided:[1] July 30, 2009

Before JOSEPH L. DIXON, LANCE LEONARD BARRY, and
HOWARD B. BLANKENSHIP, *Administrative Patent Judges.*

DIXON, *Administrative Patent Judge.*

DECISION ON APPEAL

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

I. STATEMENT OF THE CASE

A Patent Examiner rejected claims 1-2, 4-16, and 18-23. The Appellants appeal therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

A. INVENTION

The invention at issue on appeal relates to an image forming apparatus that receives image data from an external device such as a digital camera and forms an image, a power supply apparatus that supplies power to the external device, and a method of supplying power to the external device. (Spec. 1.)

B. ILLUSTRATIVE CLAIM

Claims 1 and 20, which further illustrate the invention, follow.

> 1. An image forming apparatus to which an external device transmitting image data is to be connected, the image forming apparatus comprising:
>
> a detecting unit for detecting whether the external device has been connected to the image forming apparatus, the detecting unit including
>
> a connector configured to receive a plug of a cable attached to the external device, and
>
> an interface controller connected to the connector, the interface controller outputting a first logical level signal when the plug is inserted into the connector and outputting a second

logical level signal when the plug is not inserted into the connector;

a printing unit; and

a control unit for controlling, in response to the first logical level signal output by the interface controller, the printing unit so as to prepare for image forming according to the image data from the external device, wherein

the image data is set [sic, sent] from the external device to the image forming apparatus via the cable.

20. A power supply apparatus that supplies power to an external device that transmits image data comprising:

a power supplying unit for generating the power that is to be supplied to the external device;

a connector for connecting the external device to the power supply apparatus, wherein the image data from the external device is received via the connector and the power from the power supplying unit is supplied to the external device via the connector;

a printing unit for forming an image according to the image data from the external device that has been received via the connector; and

a charge collecting unit for collecting a charge for an amount of the power that has been supplied to the external device.

C. REFERENCES

The Examiner relies on the following references as evidence:

Meese	US 4,532,418	Jul. 30, 1985
Yokoyama	US 5,694,226	Dec. 02, 1997
Stephenson	US 5,757,388	May 26, 1998
Kawai	US 5,805,780	Sep. 08, 1998
Amoni	US 5,884,086	Mar. 16, 1999

D. REJECTIONS

Claims 1-2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stephenson in view of Amoni.

Claims 4-9 and 11-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stephenson in view of Amoni and Yokoyama.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Stephenson in view of Amoni, Yokoyama, and Kawai.

Claims 15-16, 18-19, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stephenson in view of Amoni, Kawai, Meese, and *In re Larson*, 340 F.2d 965, 968 (CCPA 1965).

Claims 20-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Stephenson in view of Amoni, Kawai, and Meese.

II. ISSUE

Whether Appellants have shown error in the Examiner's initial showing of obviousness?

III. PRINCIPLES OF LAW 35 U.S.C. § 103(a)

> Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007).

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 415, and discussed circumstances in which a patent might be

determined to be obvious. *Id.* at 415-16 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 416. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 417.

The Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR*, 550 at 416). The Federal Circuit relied in part on the fact that *Leapfrog* had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* at 1162 (citing *KSR*, 550 at 418).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

IV. ANALYSIS

With respect to independent claim 1, Appellants argue that independent claim 1 requires that a printer initiate a preparatory operation involving a printer when a camera has been connected to the printer/image forming device, but the Stephenson reference discloses a preparatory

operation involving the camera display 18 is performed according to the output from an interface controller. (App. Br. 8-9). The thrust of Appellants' contention is that Stephenson teaches and suggests a preparatory operation which is performed by the camera rather than the printer. (App. Br. 9). Stephenson discloses in column 3, lines 11-16, that both a unitary camera and printer unit may be used to form the images or alternatively, the ink jet printer can be decoupled from the camera and can be used as a spaced apart accessory, typically connected by wiring to the camera.

We find the high-level description of the functions and embodiments in the Stephenson reference require a significant amount of speculation and as to the specific implementations in each of the embodiments. For instance, Stephenson states that the operator signals the start of printing using printer electronics 30 in column 3, lines 44-45, and later states that active latch 24 is used to signal start of transmission. (Cols. 4-5). Contrasted by the disclosure in Stephenson that "alternatively, the ink jet printer 12 can be decoupled from the camera and can be used as a spaced apart accessory, typically connected by wiring to the camera," but discloses no further details of this embodiment. Contrary to the Examiner's findings at pages 4-5 of the Answer where the Examiner is loose in the correlation of the teachings of Stephenson to the claimed invention in the image forming apparatus. For example, the Examiner states that

> Said image forming apparatus comprises a detecting unit (figure 2(30(portion) 1 of Stephenson) for detecting whether the external device has been connected to said image forming apparatus (column 4, lines 13-20 of Stephenson), the detecting unit including a connector (figure 2(24) of Stephenson) configured to receive a plug of a cable attached to the external device (column 2, lines 54-58 of Stephenson).

(Answer 4.)

We find the Examiner's correlation to the teachings of Stephenson to be inaccurate where columns 3-4 of Stephenson states clearly "a sensor on the camera detecting printer presence" where the camera performs the detecting step/function. From our review of the brief disclosure of Stephenson, it is unclear as to the means with which the data is communicated from the camera to the printer, but would be via the cable/wiring in the alternative embodiment.

Appellants argue that the Examiner has not presented any cogent reasoning based on the Stephenson's disclosure to show or suggest that output signals emanate from element 26. While we do not find the level of specificity in the instant claim language argued by Appellants, we do recognize that from the disclosure of Stephenson that the skilled artisan would be left questioning what correction to take in any modifications.

In Stephenson, it appears to us that the camera electronics/circuitry 16 forms a majority of the control functions and that the printer electronics are less involved in the control. Additionally, the portion of Stephenson's independent claim 1 indicates that the camera includes an "alignment means" which includes an active socket which includes electronic sensing circuitry for communicating with the ink jet printer. This disclosure tends to imply that the camera provides the sensing of the connection and the initiating for communication to the printer as Appellants contend.

The Examiner maintains that Stephenson teaches "some sort of cable must be received. Otherwise, there can be no electrical connection." (Answer 4). Later, the Examiner states that Stephenson does not disclose expressly state that said image data is set from the external device to said

image forming apparatus via said cable and relies upon the teachings of Amoni which teaches the well-known use of a USB connection and cable to supply both power and data. (Answer 6). We find the Examiner's rejection goes into great detail, but does not address the specific claim language as recited in independent claim 1 regarding the location of the units in the image forming apparatus or provide a convincing line of reasoning why it would have been obvious to one of ordinary skill in the art at the time the invention was made to have relocated the units to the image forming device. The Examiner maintains at pages 57-58 of the Answer, that control unit 30 of the printer performs preparatory actions to prepare the printer unit for image forming, yet the portions of Stephenson and columns 3 and 4 relied upon by the Examiner do not clearly teach or fairly suggest that the image forming device performs those functions. At page 59 of the Answer, the Examiner states that "all the actual preparatory operations of the printer are performed automatically by the printer itself," but the Examiner provides no citation to Stephenson or convincing line of reasoning to support an Examiner's conclusion.

From our review of the Examiner's stated rejection and Appellants' arguments, we are therefore left to conclude that the Examiner has found parts of the claimed invention, and general functionality, but we find that the combination of Stephenson and Amoni as proposed by the Examiner does not teach or fairly suggest the invention as recited in independent claim 1 containing a control unit for controlling in response to a first logic level signal output from the interface controller as recited in independent claim 1, and we cannot sustain the Examiner's rejection of independent claim 1.

With respect to independent claim 2, we find claim 2 contains similar limitations as discussed above with respect to independent claim 1 and find that the Examiner's initial showing of obviousness to be lacking as discussed above. Therefore, we cannot sustain the Examiner's rejection of independent claim 2 based upon the combination as set forth by the Examiner.

With respect to independent claims 8 and 11, we find claims 8 and 11 contains similar limitations as discussed above with respect to independent claim 1 and find that the Examiner's initial showing of obviousness to be lacking as discussed above and further find the Examiner's reliance upon the teachings of Yokoyama do not remedy the above noted deficiency. Therefore, we cannot sustain the Examiner's rejection of independent claims 8 and 11 based upon the combination as set forth by the Examiner.

With respect to independent claims 15, 20, 21, and 23, Appellants have elected to address these four independent claims together, we select independent claim 20 as the representative claim. We will address Appellants arguments as they apply to independent claim 20. We find that independent claim 20 is directed to a broader and different invention than recited in the other independent claims. The preamble of independent claim 20 does not recite an "image forming device" and the body of the claim does not set forth a "control unit" or "judging" functionality therein as in the other independent claims. With respect to independent claims 15, 20, 21, and 23, Appellants argue that the teachings of Meese are directed to a charging meter and method for electric vehicles, permitting charging of electric vehicles at a parking location in response to use of a charge card and storing charges and parking information for subsequent retrieval to facilitate billing to the owner of the charge card. Appellants set forth arguments that the

claimed invention is directed to an image forming apparatus that includes a charge collecting unit for collecting charge for an amount of power that has been supplied to an external device connected to the image forming apparatus and that Meese is directed to a non-analogous art than the other references in that it would not have been obvious to one of ordinary skill in the art to have combined Meese with the other teachings. (App. Br. 12-13). We disagree with Appellants' argument and find that the teachings of Kawai, additionally support the combination of Stephenson, Amoni, and Meese, since Kawai clearly teaches a fee for service in printing and recognition of the use of power to provide the service and product. (Kawai, col. 5-6). Appellants maintain that the Examiner's position, that Meese is reasonably pertinent to the particular problem of collection of money in exchange for the provision of electricity, is too expansive and Appellants invite the Examiner to cite a reference. We find Appellants' argument to be unpersuasive of non-analogous art and agree with the Examiner that it would have been obvious to an ordinary skilled artisan to have sought to seek payment for services and power used in the process of generating a product. We find that whether there is a single fee or an itemized fee for plural functions would have been within level of ordinary skill in the art.

Appellants further argue that the Examiner has based a rejection upon improper hindsight reconstruction. (App. Br. 13-14). We disagree with Appellants' contention and find that fee for services have long been known in the art from pay toilets, parking meters, and charges from utility companies for usage. Appellants argue that none of the references disclose or suggest adapting (using) the charging meter and method of Meese to an image forming unit to which a camera is connected then the requisite

motivation is nonexistent. (App. Br. 14). We disagree with Appellants, as discussed above.

With respect to representative independent claim 20, we find Appellants' arguments go well beyond the express limitations recited in independent claim 20 and therefore are not persuasive of error in the Examiner's initial showing of obviousness. Since Appellants have set forth arguments to independent claims 15, 20, 21, and 23 in the same discussion (although no separate heading has been set forth in the Brief), we will treat these claims as being grouped together by Appellants.

> Each ground of rejection must be treated under a separate heading. For each ground of rejection applying to two or more claims, the claims may be argued separately or as a group. When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone.

(37 C.F.R. § 41.37 (c)(1)(vii)).

Since Appellants' arguments do not show error in the Examiner's initial showing of obviousness, we will sustain the rejection of independent claim 20. Due to Appellants grouping of the claims, we sustain the rejection of independent claims 15, 21, and 23 and their respective dependent claims.

Additionally, Appellants set forth a number of arguments directed to independent claim 20 in the Reply Brief, but Appellants have not previously argued these limitations, therefore, these arguments are deemed to be waived. We note that the Reply Brief is properly used to respond to points of argument raised by the Examiner in the Answer and not as a means for presenting new arguments. *See Optivus Tech., Inc. v. Ion Beam Applications*

S.A., 469 F.3d 978, 989 (Fed. Cir. 2006) (an issue not raised in an opening brief is waived). While we have fully considered Appellants' responses in the Reply Brief, we decline to address any new arguments not originally presented in the principal Brief. With respect to all claims before us on appeal, arguments which Appellants could have made but chose not to make have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(vii). *See also In re Watts*, 354 F.3d 1362, 1368 (Fed. Cir. 2004).

For completeness we address Appellants' arguments with respect to independent claim 20. Appellants group independent claim 20 with independent claims 15, 21, and 23 in the Reply Brief at page 4 and argue that the claims require a judging unit, but independent claim 20 does not recite a judging unit. Therefore, this argument is not persuasive of error in the Examiner's showing. Appellants argue that at page 5 of the Reply Brief that Kawai always collects a charge for both the electricity necessary to maintain the apparatus and a charge for printing and that Kawai does not suggest separate charges for power to the external devices such as a camera or printer, but again independent claim 20 does not recite such specific limitations. Therefore, this argument is not persuasive of error in the same showing.

V. CONCLUSION

For the aforementioned reasons, Appellants have shown error in the Examiner's initial showing of obviousness of claims 1, 2, and 4-14, but Appellants have not shown error in the Examiner's initial showing of

obviousness of independent claim 20 and claims 15-19, and 21-23 grouped therewith.

VI. ORDER

We reverse the Examiner's obviousness rejections of claims 1, 2, and 4-14, and affirm the Examiner's obviousness rejections of claims 15-23.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

rwk

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